### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-002054 Address: 333 Burma Road **Date Inspected:** 12-Dec-2007

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Xu Xianping **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** OBG Components, Tower Mock-Up

### **Summary of Items Observed:**

The Caltrans Quality Assurance Inspector(QA), M. Paul Stovall, was present at Zhenhua Port Machinery Company (Z. P. M. C.), Changxing Island, Shanghai, China for the purpose of monitoring the fabrication of the SAS/San Francisco/Oakland Bay Bridge.

- Z. P. M. C. personnel were grinding stiffener plate faying surfaces prior to fit up and tack welding.
- Z. P. M. C., personnel are not filling in the information boxes on the Identification Stickers that they place on the pieces on a regular basis as work the is completed. These stickers / labels are being utilized by Z. P. M. C. for the tracking of non-destructive testing and visual inspections.
- Z. P. M. C., personnel are working on the Submerged Arc Welder (SAW) welder, as it is not working. This occurred in Bay 3.
- Z. P. M. C. personnel are laying control lines on Plate 89A prior to any stiffeners being attached.

Heat Straightening is being performed a Splice Connection Plate, there are no counterweights being used, and the piece is laying flat, upside down, and is supported. ZPMC QC personnel are checking and recording the temperature during Heat Straightening.

Bottom Plate 002-01-(008-009), stiffener plates are tack welded by Sun Tiyu, 054459. The QA Inspector checked the amps and volts and recorded-- 284 amps, and 28.8 volts, which appear to be within the Welding Procedure

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Specification range.

Plate 98B, Side Plate (SP) 057-01-(013-014), is being welded by ZPMC welder Li Zihong, #062447. The QA Inspector checked the Welding Procedure Specification parameters and recorded--253 amps 28.3 volts; welder Li Zihong, # 062447, welding stiffeners onto the same plate (SP057--).

## **Summary of Conversations:**

The Caltrans QA Inspector had no conversations with ZPMC QC other than asking the names of welders, WPS #, etc. As noted above, there was a delay in welding of SAW complete joint penetration welds, due to the SAW semi-automatic Welder not working. Z. P. M. C. personnel were able to repair the Welder after approximately 45 minutes.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Stovall, Paul	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer